

CLAIMS:

1. A method of generating a language model (7) for a speech recognition system (1), characterized

in that a first text corpus (10) is gradually reduced by one or various text corpus parts in dependence on text data of an application-specific second text corpus (11) and

5 in that the values of the language model (7) are generated on the basis of the reduced first text corpus (12) is used.

2. A method as claimed in claim 1, characterized in that for determining the text corpus parts by which the first text corpus (10) is reduced, unigram frequencies in the first text corpus (10), in the reduced first text corpus (12) and in the second text corpus (11) are evaluated.

10 3. A method as claimed in claim 2, characterized in that for determining the text corpus parts, by which the first text corpus (10) in a first iteration step and accordingly in further iteration steps is reduced, the following selection criterion is used:

$$\Delta F_{i, M} = \sum_{x_M} N_{\text{spez}}(x_M) \log \frac{p(x_M)}{p_{A_i}(x_M)}$$

15 with $N_{\text{spez}}(x_M)$ as the frequency of the M-gram x_M in the second text corpus, $p(x_M)$ as the M-gram probability derived from the frequency of the M-gram x_M in the first training corpus and $p_{A_i}(x_M)$ as the M-gram probability derived from the frequency of the M-gram x_M in the first training corpus reduced by the text corpus part A_i .

20 4. A method as claimed in claim 3, characterized in that trigrams are used as a basis with $M = 3$ or bigrams with $M = 2$ or unigrams with $M = 1$.

25 5. A method as claimed in one of the claims 1 to 4, characterized in that a test text (15) is evaluated to determine the end of the reduction of the first training corpus (10).

6. A method as claimed in claim 5, characterized in that the reduction of the first training corpus (10) is terminated when a certain perplexity value is reached or a certain OOV rate of the test text, especially when a minimum is reached.

5 7. A method of generating a language model (7) for a speech recognition system (1), characterized in that a text corpus part of a given first text corpus is gradually extended by one or various other text corpus parts of the first text corpus in dependence on text data of an application-specific text corpus to form a second text corpus and in that the values of the language model (7) are generated while the second text corpus is used.

10

8. A method of generating an acoustic model (6) for a speech recognition system (1), characterized

in that acoustic training material representing a first number of speech utterances is gradually reduced by training material parts representing individual speech utterances in dependence on a second number of application-specific speech utterances and

15 in that the acoustic references (8) of the acoustic model (6) are formed by means of the reduced acoustic training material.

9. A method of generating an acoustic model (6) for a speech recognition system (1), characterized in that a part of given acoustic training material, which material represents a multitude of speech utterances, is gradually extended by one or more other parts of the given acoustic training material and in that the acoustic references (8) of the acoustic model (6) are formed by means of the accumulated parts of the given acoustic training material.

20 25 10. A speech recognition system comprising a language model generated in accordance with one of the claims 1 to 7 and/or an acoustic model generated in accordance with claim 8 or 9.

*PCP
PA*